

PATENT ABSTRACTS OF JAPAN

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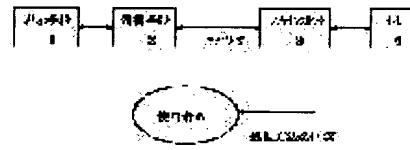
(21)Application number : 11-139406 (71)Applicant : NEC HOME ELECTRONICS LTD
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(54) FAULT DIAGNOSTIC DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a fault diagnostic device that detects a fault of an input signal or a fault of a device and informs a maintenance company about the fault to troubleshoot the fault.

SOLUTION: This fault diagnostic device detects a voltage of an input signal and of a control signal of each circuit of a display means 1 and an input power supply and a control means 2 that applies quality discrimination to the detected control signal and stores a history storing past fault contents is connected to a maintenance center 3 via a network when the display means is failed to receive immediate contact from the center 3 about a disposition method of a defective component, a data and time and a cost or the like.



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出願人	NECホームエレクトロニクス	
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LEGAL STATUS

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CLAIMS

[Claim(s)]

[Claim 1] The signal circuit which receives the picture signal inputted into the bottom of input power supply, and the picture circuit which processes the picture signal received by this signal circuit, The deflection circuit which deflects the picture signal processed in this picture circuit, and a display means to have the drop which displays the picture signal deflected by this deflection circuit, With the control signal outputted from each circuit of the above-mentioned signal circuit of this display means, a picture circuit, and a deflection circuit The distinction circuit which sends out a notice signal based on the parameter of the fault part memorized beforehand and a failure history from the detector which detects the malfunctioning of each above-mentioned circuit, and the malfunctioning detected by this detector, While the user name beforehand remembered to be the notice signal delivered from this distinction circuit, the address, the telephone number, the purchase stage, a dealer name, and an equipment item number are sent out The fault read-out unit characterized by consisting of a control means equipped with CPU which sends out the time of the above-mentioned malfunctioning, and the Universal Serial Bus which connects the output signal from this CPU to a maintenance center via a network.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] this invention is [0002] concerning [start a fault read-out unit and] the fault read-out unit of display meanses, such as CRT, especially.

[Description of the Prior Art] As shown in drawing 3, the conventional fault read-out unit consists of CPU123 which shows a distinction result in the display means 101 at the display screen of the detector of picture signal D, a quality distinction circuit, and the drop 11, checks the existence of picture signal D, performs the fault status of picture signal D by the detector, and shows the content of distinction to quality distinction and the drop 11 by CPU123.

[0003]

[Problem(s) to be Solved by the Invention] However, since, as for the conventional fault read-out unit, a failure part except an input picture signal was not recognized by the user by not carrying out a display of the failure of each circuit within a display means only by the input picture signal, although the maintenance center was connected with by oral or FAX, since the exact information according to criteria was seldom transmitted, the user had the technical problem which a management of the content of failure takes great time.

[0004] Then, the purpose of this invention detects the failure of an input picture signal, or the failure of equipment, transmits it to a maintenance center, and is to offer the fault read-out unit from which failure is removed.

[0005]

[Means for Solving the Problem] In order to solve an above-mentioned technical problem, the fault read-out unit of this invention The signal circuit which receives the picture signal inputted into the bottom of input power supply, and the picture circuit which processes the picture signal received by this signal circuit, The deflection circuit which deflects the picture signal processed in this picture circuit, and a display means to have the drop which displays the picture signal deflected by this deflection circuit. With the control signal outputted from each circuit of the above-mentioned signal circuit of this display means, a picture circuit, and a deflection circuit The distinction circuit which sends out a notice signal based on the parameter of the fault part memorized beforehand and a failure history from the detector which detects the malfunctioning of each above-mentioned circuit, and the malfunctioning detected by this detector, While the user name beforehand remembered to be the notice signal delivered from this distinction circuit, the address, the telephone number, the purchase stage, a dealer name, and an equipment item number are sent out It is characterized by consisting of a control means equipped with CPU which sends out the time of the above-mentioned malfunctioning, and the Universal Serial Bus which connects the output signal from this CPU to a maintenance center via a network.

[0006]

[Embodiments of the Invention] Next, the fault read-out unit by the gestalt of 1 operation of this invention is explained with reference to a drawing.

[0007] Drawing 1 is the block block diagram (A) and data output view (B) of the fault read-out unit by the gestalt of 1 operation of this invention.

[0008] Drawing 2 is the detail drawing of the fault read-out unit by the gestalt of 1 operation of this invention.

[0009] The fault read-out unit by the gestalt of 1 operation of this invention As shown in the drawing 1 and the drawing 2, with the control signal outputted from a display means 1 to display picture signal D inputted into the bottom of input power supply, and this display means 1 It consists of a control means 2 to deliver the user name which detects the malfunctioning of the display means 1 and was beforehand remembered to be a notice signal, the address, the telephone number, the purchase stage, a dealer name, and an equipment item number, and to send out the time of a malfunctioning to the maintenance center 3 via a network.

[0010] Moreover, the display means 1 of the fault read-out unit by the gestalt of 1 operation of this invention consists of the signal circuit 13 which receives picture signal D inputted into the bottom of the input power supply 14 as shown in drawing 2, a picture circuit 12 which processes picture signal D which received by this signal circuit 13, a deflection circuit 15 which deflects the picture signal processed in this picture circuit 12, and a drop 11 which displays the picture signal deflected by this deflection circuit 15.

[0011] Furthermore, the control means 2 of the fault read-out unit by the gestalt of 1 operation of this invention As shown in drawing 2, with the control signal outputted from each circuit of a signal circuit 13, the picture circuit 12, and the deflection circuit 15 The distinction circuit 22 which sends out a notice signal based on the parameter of the fault part beforehand memorized by the history store circuit 24 and a failure history from the detector 21 which detects the malfunctioning of each circuit, and the malfunctioning detected by this detector 21, While the user name beforehand remembered to be the notice signal delivered from this distinction circuit 22 by the history store circuit 24, the address, the telephone number, the purchase stage, a dealer name, and an equipment item number are sent out CPU23 which sends out the time of a malfunctioning, and Universal Serial Bus 26 which connects the output signal from this CPU23 to the maintenance center 3 via a network (USB is called below), It has SW27 which controls sending out of the fault part memorized by the history store circuit 24 and a failure history.

[0012] Next, an operation of the fault read-out unit by the gestalt of 1 operation of this invention is explained with reference to a drawing.

[0013] An operation of the fault read-out unit by the gestalt of 1 operation of this invention As shown in the drawing 1 and the drawing 2, detect the voltage of the control signal outputted from each circuit of the signal circuit 13 of the display means 1, the

picture circuit 12, and the deflection circuit 15, and it delivers to a detector 21. An analog wave is digitized by this detector 21, and quality distinction of the part is carried out in the distinction circuit 22, and it delivers and remains in CPU23, and distinguishes whether the failure of the display means 1 or an input signal is poor at a part, and the result is sent out to Light Emitting Diode25 arranged in the front face of the display means 1.

[0014] Therefore, when [of the display means 1] poor, CPU23 is delivered to the history store circuit 24, is memorized, by display of Light Emitting Diode25 of display means 1 front face, when the display means 1 is poor, by USB26, it connects with the maintenance center 3 through a network, and pushes SW27 of the control means 2, and sends out the content of fault.

[0015]

[Effect of the Invention] It is effective in the ability for the failure status to grasp correctly and do error processing quickly, in order according to the fault read-out unit of this invention to detect the failure of an input signal, or the failure of equipment, to transmit to a maintenance center and to remove failure, as explained above.

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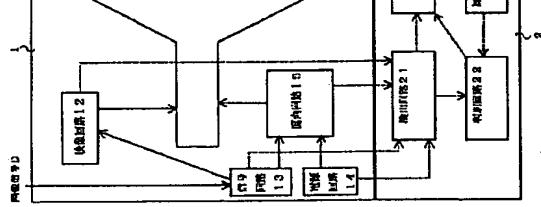
【0011】次に、本発明の一実施の形態による故障診断装置の動作を図面を参照して説明する。

【0013】本発明の一実施の形態による故障診断装置の動作は、図1及び図2に示すように、表示手段1の信号回路1.3、映像回路1.2、偏向回路1.5の各回路から出力される制御信号の電圧を検出して検出回路2.1に送り、この検出回路2.1でアナログ波形をデジタル化して一部を削除回路2.2で良否判別させ、CPU2.3に送出して偏り一部で表示手段1の不良か入力信号の不良か、表示手段1の不良か表示手段1の前面に配置されたしを判別し、その結果を表示手段1の前面に配置されたしE2.5に送出する。

【0014】従って、CPU2.3は、表示手段1の不良の場合、履歴記憶回路2.4に送出して記憶し、表示手段1前面のLED2.5の表示によって表示手段1が不良の時、USB2.6により、ネットワークを介してメンテナンスセンタ3に接続し、制御手段2のSW2.7を押して不具合内容を送出する。

【0015】【発明の効果】以上説明したように、本発明の故障診断装置によれば、入力信号の障害を検出し、メンテナンスセンタに伝達して障害を除去するため、障害状況が正確に把握でき、かつ障害処理ができる効果がある。

【図面の簡単な説明】



[図2]

【図1】本発明の一実施の形態による故障診断装置のブロック構成図 (A) 及びデータ出力図 (B) である。

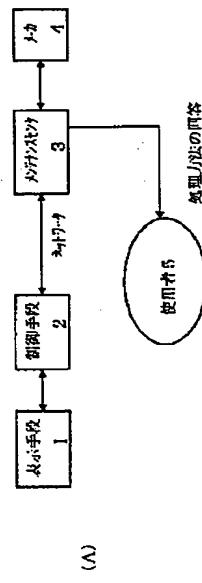
【図2】本発明の一実施の形態による故障診断装置の詳細図である。

【図3】先來の故障診断装置のブロック構成図である。

【符号の説明】

- 表示手段
- 制御手段
- メンテナンスセンタ
- メータ
- 使用者
- 表示器
- 映像回路
- 偏航回路
- 電源回路
- 偏向回路
- 検出回路
- 判別回路
- CPU
- 履歴記憶装置
- LED
- USB
- SW

[図1]

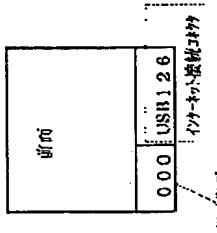


気温計の回路

[図2]

出力セグ 0000 **** 0000 8888 8888 8888 8888		
位置名 : ST 21457		
製品番号	PP124043	
版元社	1.2.3商社	
購入日	平成00年00月00日	
故障履歴	平成00年00月00日	1.初期
	0.0回	
(R)	費用 8000円	5000円

[図3]



良否判定のデータ出力